(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 3 June 2004 (03.06.2004)

PCT

(10) International Publication Number WO 2004/047444 A1

(51) International Patent Classification7:

H04N 7/12

(21) International Application Number:

PCT/US2003/033887

(22) International Filing Date: 27 October 2003 (27.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/426,646

15 November 2002 (15.11.2002)

- (71) Applicant (for all designated States except US): THOM-SON LICENSING S.A. [FR/FR]; 46, Quai A. Le Gallo, F-92648 Boulogne (FR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): COOPER, Jeffrey, Allen [US/US]; 11 Toth Lane, Rocky Hill, NJ 08553 (US).
- (74) Agents: TRIPOLI, Joseph, S. et al.; c/o Thomson Licensing Inc., Two Independence Way, Suite #200, Princeton, NJ 08540 (US).

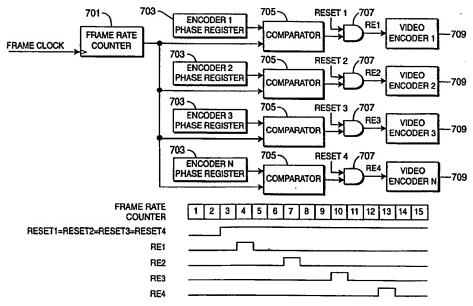
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR STAGGERED STATISTICAL MULTIPLEXING



(57) Abstract: In a multi-channel video transmission system in which channel video segments are operated on by corresponding channel video encoders (709) to encode the video segments into frames organized into groups of defined frame types, an apparatus and method to cause a temporal staggering for the processing of a specific frame type among the various channels. In one preferred embodiment, the apparatus includes a frame counter (701) to synchronize reset signals associated with the corresponding channel video encoders (709) and a means for providing a timing offset to channel video encoders corresponding to a selected frame stagger for a particular corresponding channel.